



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,152	12/29/2000	Stephen S. Jackson	2204/A84US	8441
34845	7590	09/01/2005	EXAMINER	
STEUBING AND MCGUINNESS & MANARAS LLP			PHUNKULH, BOB A	
125 NAGOG PARK			ART UNIT	
ACTON, MA 01720			PAPER NUMBER	
			2661	

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,152

Applicant(s)

JACKSON, STEPHEN S.

Examiner

Bob A. Phunkulh

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This communication is in response to applicant's 06/27/2005 amendment(s)/response(s) in the application of **JACKSON** for "**LOCAL AREA NETWORK WITH ELECTROCHEMICAL POWER SOURCE**" filed 12/29/2000. The amendments/response to the claims have been entered. No claims have been canceled. No claims have been added. Claims 1-47 are now pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-20, 22-35, 37-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cole et al. (US 6,348,874), hereinafter Cole, in view of Lehr et al. (US 6,643,566), hereinafter Lehr.

Regarding claims 1, 10-13, Cole discloses a central network device (the communication device 12, see figures 1-4) for use in a power integrated local area network, the central network device comprising:

an electric power source (Vs see figure 1 or power supply 16, see figure 3); and
a network interface configured to communicate with a plurality of member network devices (nodes 20, see figures 1 and 3; and col. 3 lines 45-55) and to deliver power, from energy stored by the electrochemical power source, to at least one

Art Unit: 2661

selected member network device, the selected member network device being capable of accepting power over the power integrated local area network.

Cole fails to explicitly disclose the power source is electrochemical source i.e. battery power source.

Lehr, on the other hand, teaches in the event of a power failure a battery based UPS can be used to support a plurality of critical network elements for extended periods of time in a LAN network (see col. 13 lines 37-59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made supply the teaching of Lehr especially backup battery power supply or UPS in the system taught by Cole for maintaining a communication network in event of power failure i.e. electric failure.

Regarding claim 2, Cole discloses a central network device according to claim 1, wherein the power integrated local area network is configured to execute the Ethernet protocol (see col. 2 lines 37-44).

Regarding claim 3, Cole discloses a central network device according to claim 1, further comprising networking logic chosen from the group consisting of a switch, a hub, a router, and a multiplexer (see col. 3 lines 12-23).

Regarding claim 4, Cole discloses a central network device according to claim 1, wherein the power integrated local area network is configured to operate according to a Power Ethernet Standard (see col. 2 lines 37-44).

Regarding claim 6, Cole discloses a central network device according to claim 1, further comprising a housing shared by the electrochemical power source and the network interface (see figure 3).

Regarding claim 7, Cole discloses a central network device according to claim 1, further comprising power rectification circuitry (Voltage regulator 14 in figure 2 or Power supply 16 in figure 3, see col. 3 lines 39-55).

Regarding claim 8-9, Cole inherently discloses the central network device further comprising an AC to DC converter or DC to AC converter (see col. 2 line 65 to col. 3 line 5).

Regarding claim 14, Cole discloses a central network device according to claim 1, wherein the plurality of member network devices comprises a network appliance (see col. 3 lines 5-11).

Regarding claim 15, Cole discloses a central network device, wherein the network appliance comprises (remote node 20, see figures 1 and 5):

Art Unit: 2661

a peripheral device configured to transmit data to the power integrated local area network (see figures 1 and 5);

a communication engine operably coupled with the peripheral device, the communication engine configured to control data transmission via the power integrated local area network; and

an appliance network interface operably coupled with the communication engine, the appliance network interface being configured to transmit data to and to receive data from the power integrated local area network, data transfer between the peripheral device and the power integrated local area network being forwarded via the appliance network interface (see col. 3 lines 5-11).

Regarding claim 16, Cole discloses a power integrated local area network, the network comprising:

a plurality of member network devices (nodes 20, see figures 1 and 3; and col. 3 lines 45-55); and

a central network device configured to communicate with the plurality of member network devices, and to deliver power, from energy stored in an power source, to at least one selected member network device that is capable of accepting power from the central network device (Vs see figure 1 or power supply 16, see figure 3).

Cole fails to explicitly discloses the power source is electrochemical source i.e. battery power source.

Lehr, on the other hand, teaches in the event of a power failure a battery based UPS can be used to support a plurality of critical network elements for extended periods of time in a LAN network (see col. 13 lines 37-59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made supply the teaching of Lehr especially backup battery power supply or UPS in the system taught by Cole for maintaining a communication network in event of power failure i.e. electric failure.

Regarding claims 17, 22, 26-29, Cole discloses a central network device for use in a power integrated local area network, the central network device comprising:

networking logic, configured to communicate with a plurality of member network devices (nodes 20, see figures 1 and 3; and col. 3 lines 45-55); and

a power source means for providing power to at least one selected member network device, the selected member network device being capable of accepting power over the power integrated local area network (Vs see figure 1 or power supply 16, see figure 3).

Cole fails to explicitly disclose the power source is electrochemical source i.e. battery power source.

Lehr, on the other hand, teaches in the event of a power failure a battery based UPS can be used to support a plurality of critical network elements for extended periods of time in a LAN network (see col. 13 lines 37-59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made supply the teaching of Lehr especially backup battery power supply or UPS in the system taught by Cole for maintaining a communication network in event of power failure i.e. electric failure.

Regarding claim 18, Cole discloses a central network device according to claim 17, wherein the power integrated local area network is configured to execute the Ethernet protocol (see col. 2 lines 37-44).

Regarding claim 19, Cole discloses a central network device according to claim 17, wherein the networking logic is chosen from the group consisting of a switch, a hub, a router, and a multiplexer (see col. 3 lines 12-23).

Regarding claim 20, Cole discloses a central network device according to claim 17, wherein the power integrated local area network is configured to operate according to a Power Ethernet Standard (see col. 2 lines 37-44).

Regarding claim 23, Cole discloses a central network device according to claim 17, further comprising power rectification circuitry (Voltage regulator 14 in figure 2 or Power supply 16 in figure 3, see col. 3 lines 39-55).

Regarding claims 24-25, Cole inherently discloses the central network device further comprising an AC to DC converter or DC to AC converter (see col. 2 line 65 to col. 3 line 5).

Regarding claim 30, Cole discloses a central network device according to claim 17, wherein the plurality of member network devices comprises a network appliance (see col. 3 lines 5-11).

Regarding claim 31, Cole discloses a central network device, wherein the network appliance comprises (remote node 20, see figures 1 and 5):

a peripheral device configured to transmit data to the power integrated local area network (see figures 1 and 5);

a communication engine operably coupled with the peripheral device, the communication engine configured to control data transmission via the power integrated local area network; and

an appliance network interface operably coupled with the communication engine, the appliance network interface being configured to transmit data to and to receive data from the power integrated local area network, data transfer between the peripheral device and the power integrated local area network being forwarded via the appliance network interface (see col. 3 lines 5-11).

Regarding claims 32, 37, 40-43, Cole discloses a method for powering a local area network using power from a central network device, the method comprising:

selecting at least one member network device capable of accepting power over the local area network (see figures 1 and 3); and

providing power, from energy stored by an power source, to the at least one selected member network device (see col. 3 lines 45-55).

Cole fails to explicitly discloses the power source is electrochemical source i.e. battery power source.

Lehr, on the other hand, teaches in the event of a power failure a battery based UPS can be used to support a plurality of critical network elements for extended periods of time in a LAN network (see col. 13 lines 37-59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made supply the teaching of Lehr especially backup battery power supply or UPS in the system taught by Cole for maintaining a communication network in event of power failure i.e. electric failure.

Regarding claim 33, Cole discloses a method according to claim 32, wherein the method comprises: executing the Ethernet protocol on the local area network (see col. 2 lines 37-44).

Art Unit: 2661

Regarding claim 34, Cole discloses a method according to claim 32, wherein the method comprises: housing the electrochemical power source in a common enclosure with networking logic chosen from the group consisting of a switch, a hub, a router, and a multiplexer (see col. 3 lines 12-23).

Regarding claim 35, Cole discloses a method according to claim 32, wherein the method comprises: operating the local area network according to a Power Ethernet Standard (see col. 2 lines 37-44).

Regarding claims 38-39, Cole inherently discloses the central network device further comprising an AC to DC converter or DC to AC converter (see col. 2 line 65 to col. 3 line 5).

Regarding claim 44, Cole discloses a method according to claim 32, wherein the method comprises: delivering power from the electrochemical power source to a network appliance (see col. 3 lines 5-11).

Regarding claim 45, Cole discloses the network appliance comprises (remote node 20, see figures 1 and 5):

a peripheral device configured to transmit data to the power integrated local area network (see figures 1 and 5);

a communication engine operably coupled with the peripheral device, the

Art Unit: 2661

communication engine configured to control data transmission via the power integrated local area network; and

an appliance network interface operably coupled with the communication engine, the appliance network interface being configured to transmit data to and to receive data from the power integrated local area network, data transfer between the peripheral device and the power integrated local area network being forwarded via the appliance network interface (see col. 3 lines 5-11).

Regarding claim 46, Cole discloses a central network device for use in a power integrated local area network, the central network device comprising:

a housing;

networking logic, enclosed by the housing, configured to communicate with a plurality of member network devices (switching circuit 18 and microprocessor 22, see figure 4);

an power source, sharing the housing with the networking logic, for storing energy to provide power for the member network devices (see power supply 16, figure 3; and switching circuit 18, figure 4); and

rectification circuitry, sharing the housing with the networking logic and the power source(voltage regulator 14, figure 2; power supply 16, figure 3);

wherein the power integrated local area network is configured to execute the Ethernet protocol(see col. 2 lines 36-44).

Art Unit: 2661

Cole fails to explicitly disclose the power source is electrochemical source i.e. battery power source.

Lehr, on the other hand, teaches in the event of a power failure a battery based UPS can be used to support a plurality of critical network elements for extended periods of time in a LAN network (see col. 13 lines 37-59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made supply the teaching of Lehr especially backup battery power supply or UPS in the system taught by Cole for maintaining a communication network in event of power failure i.e. electric failure.

Regarding claim 47, Cole discloses a method for powering a local area network using power from a central network device, the method comprising:

housing an power source in a common enclosure with networking logic configured to communicate with a plurality of member network devices (see power supply 16, figure 3; and switching circuit 18, figure 4);

rectifying primary power that is delivered to the central network device, to charge the power source (voltage regulator 14, figure 2; power supply 16, figure 3);

delivering power stored by the electrochemical power source to at least one of the plurality of member network devices (see col. 3 lines 45-55); and

executing the Ethernet protocol on the local area network (see col. 2 lines 36-44).

Cole fails to explicitly disclose the power source is electrochemical source i.e. battery power source.

Lehr, on the other hand, teaches in the event of a power failure a battery based UPS can be used to support a plurality of critical network elements for extended periods of time in a LAN network (see col. 13 lines 37-59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made supply the teaching of Lehr especially backup battery power supply or UPS in the system taught by Cole for maintaining a communication network in event of power failure i.e. electric failure.

Claims 5, 21, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cole in view of Hutchison et al (US 5,838,989), hereinafter Hutchison.

Regarding claims 5, 21, 36, Cole fails to disclose the central network device being configured to deliver power and data through an MDI-X compliant port.

Hutchison, on the other hand, discloses media dependent interface (MDI-X) is widely used in Ethernet or 10Base-T network (see col. 8 lines 31-46).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made provides the teaching of Hutchison in the system taught by Cole in order to comply with the standard.

Response to Arguments

Applicant's arguments filed 6/27/2005 have been fully considered but they are not persuasive.

Response to the applicant argument in page 11, Cole discloses the communication device 12 is supply with "DC" power supply Vs (see figures 1-3). In col. 2 lines 1-4, the Vs is a DC voltage source. Also, the Newton's Telecom Dictionary¹ defines the term "battery" as "...is used to reference the DC power source ...". Therefore, Cole discloses the claimed subject matter "an electrochemical power source in the central networking device."

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any response to this action should be mailed to:

The following address mail to be delivered by the United States Postal Service (USPS) only:

¹ See Newton's Telecom Dictionary by Harry Newton

Art Unit: 2661

Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

The following address mail to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, Hand Delivery, etc.) as follow:

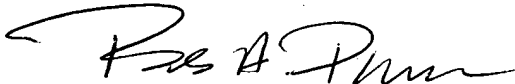
U.S. Patent and Trademark Office
220 20th Street South
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Chau Nguyen**, can be reach on **(571) 272-3126**. The fax phone number for this group is **(571) 273-8300**.

Art Unit: 2661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bob A. Phunkulh
Primary Examiner
TC 2600
Art Unit 2661
August 22, 2005

**BOB PHUNKULH
PRIMARY EXAMINER**